EMPLOYEES PERCEPTIONS ON EFFECT OF LIGHTING THAT AFFECT EMPLOYEE PERFORMANCE IN THE WORKPLACE

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ABSTRACT

EMPLOYEES PERCEPTIONS ON EFFECT OF LIGHTING THAT AFFECT EMPLOYEE PERFORMANCE IN THE WORKPLACE

Siti Mardhiah Binti Jamian

In general, a good condition of lighting help employees to see objects and work they are doing clearly and quickly. The effect of a good lighting will increase employee productivity and reduce the problem and stress of eyes vision or eye sight to employees' work. However, lighting in the workplace is not always systematic, it will result on employees' outcomes and performance. Employees' output and work efficiency will decrease and no longer efficient. This distress may interfere employees' performance and quality work possibly which will influence their behaviour on work performance. Previous researcher focused on a certain factors that could give an effect on the employee's performance at the workplace. The study was conduct to identify employees' perceptions on the effect of lighting that affect the employees' performance in the workplace and to explore whether different colour of lighting at the workplace affect employee's performance. About 274 of respondents are involved in the study and the data were analysed through SPSS version 20.0 and Pearson correlation to examine the correlation between workplace lighting and the effect with an employee's performance.

Keywords: Bright light, Dim light, Natural light, employee alertness, employee satisfaction, employee mood & productivity.
ABSTRAK

PERSEPSI PEKERJA TERHADAP KESAN PENCAHAYAAN YANG MEMPENGARUHI PRESTASI PEKERJA DI TEMPAT KERJA

Siti Mardhiah Binti Jamian


Penyelidik sebelum ini hanya memberikan tumpuan dan tertumpu pada faktor-faktor tertentu saja yang boleh memberi kesan yang mempengaruhi prestasi pekerja di tempat kerja. Pengkaji menjalankan kajian untuk mengenalpasti persepsi pekerja terhadap perbezaan warna lampu yang digunakan iaitu lampu yang terang, malap dan semulajadi (normal) yang memberi kesan kepada prestasi pekerja dan mengenalpasti sama ada lampu tempat kerja memberi kesan kepada prestasi pekerja. Sebanyak 274 orang pekerja terlibat dalam kajian ini. Data dianalisis melalui SPSS versi 20.0 dan ujian korelasi Pearson digunakan untuk mengkaji korelasi antara perbezaan lampu dan kesannya terhadap prestasi pekerja.

CHAPTER 1
INTRODUCTION

1.0 Introduction

Lighting is an important element to ensure and creates a peaceful and comfortable workplace environment for employees. A good circumstance of lighting is needed for each employee. A good and satisfying lighting may help workers to see clearly and perform their work quickly without making frequent errors due to poor or unsatisfying lighting factors. Therefore, it is the responsibility of every company to provide a perfect lighting system at the workplace. This is because it can assist employees to perform their work perfectly calmly and comfortably.

In general, a good condition of lighting helps employees to see clearly and do their work quickly. The effect of a good lighting will increase employee’s productivity and reduce employee’s eye sight problem and stress due to poor vision. However, lighting in the workplace is not always systematic and it will result on employees. Job output and work efficiency will decrease and less efficient. This distress may interfere employee’s performance and quality work which can also influence their behaviour towards work.

1.1 Background of Study

The process of changing the workplace lighting system may influence employees' behaviour and performance of their daily task. According to studies by Wyon (1996), he introduced the method of the relationship between the changes and performance in
the workplace environment with the specific mechanism that may describe the effect of the changes ended. The further research also introduced a model to explain the changes of lighting, which may affect a person through the visual of view and in the form of an image. It is also known as psycho-biology of the brain. The process of changes the lighting may affect employees’ performance because it can affect the employees when performing their duties. Every person has different effects on their work performance. The creation of changes on the light or lamp in the workplace may change employees’ satisfaction level and perception. According to Chatzoglou, Vraimaki, Komsiou, Polychrou, and Diamantidis (2011), they stated that in the workplace, employees who are satisfied with the physical environment will become more productive and more likely to produce better outcomes.

Moreover, increasing quality of lighting in the workplace gives a positive impact on the performance of employees involved. This is because lighting in the workplace influences employee productivity, outcomes, error and accidents at work. According to Jensen (2014) a study conducted by the American Society of Interior Design percent of workers criticised about the lighting conditions in their offices. Therefore, it is proven that workers can be uncomfortable with workplace lighting condition. However employers did not take this issue seriously and repetitively make the same mistake on the lighting of the workplace. Both of these scenarios clearly explained that unsatisfactory office lighting condition despite dim lighting or too bright lighting could influence employees’ performance. This evidence is supported by another researcher that employees are satisfied with their work environment is directly related to their job satisfaction and indirectly related to organizational commitment and turnover intention (Kamarulzaman, Saleh, Hashim, & Abdul-Ghani, 2011).

Employees spend a lot of their time in the workplace, thus the physical environment very much influenced their wellbeing, work performance and productivity. Temperature, layout planning, space planning, noise condition and air quality are the important elements that should be taken account and focused in the office whereby it can affect employee’s concentration and productivity in achieving company goals. Poor lighting can cause discomfort to employees to perform their daily task properly and confidently. Meanwhile, dim lighting condition will cause employees’ productivity to drop down. The dim lighting also can cause eye strain and headaches because the eyes need to work extra hard to see things during insufficient lighting. In addition, the
dim light can cause drowsiness and lack of focus during working hours. This will give a negative impact on their job motivation which leads to declination of performance.

A study was conducted recently by the Chief Executive of the company magazine in Canada to attract the attention and sustaining talented employer or employees as well as to increase profitability and improve productivity to their company. The employer must ensure that the designation of workplace environment played an important role in influencing employee satisfaction and productivity of the work that they do. The quality of lighting is also the key element in designing an ideal and comfortable workplace. Therefore, workplace lighting is an important component in each organization because the suitability may influence the behaviour and performance of employees.

1.2 Problem Statement

Lighting in the workplace is an important element that can influence working atmosphere especially to the employee working during night shift. Changing the lighting condition is a process that can influence employees' performance and productivity. If the lighting is not suitable and failed to meet the specification of lighting system in the workplace, it may cause an employee to feel uncomfortable and dissatisfied to do their work properly. The satisfaction level of employees depends on the quality of workplace environment especially on the lighting system used at workplace. This is because a good quality of lighting gives a positive impact to the employees especially through the quality of employees' work. According to the previous studies, Mills, Tomkins, and Schlange (2007) said that the higher connected colour temperature light possibly useful to develop the wellbeing and productivity of employees although in the further work. Other than that, Myriam, Ochoa, and Hensen, (2012) stated that the physical arrangement of office environment may influence the level and types of social interaction between employees. The result of this phenomenon can be seen when the performance of employee is increasing and complaints about working environment and conditions or discomfort among employees are decreasing.

Besides that, a good physical office arrangement is very important to help workers perform their task more quickly, easily and efficiently; the layout plan allows more space for maximum use and economy; communication system becomes easier and faster and it provides comfort as well affect the behaviour and employees work productivity.
A comfortable working environment will guarantee the increase of employee's performance and productivity.

The study will determine the importance of the physical environment which will influence the employees' performance related to effect of lighting in the workplace. This study also will highlight the important element of the lighting system of workplace, the different types of lighting that leads employee performance to decrease and also the importance of workplace lighting to every organization especially to the company which have a high number of employee and work commitment.

From the previous study, the findings of this paper did not emphasize on the connection between employee performance and lighting used in the workplace which can influence the employee performance in workplace lighting as a whole. But, the study paper only focused on the effect of workplace lighting on employees' health. Hence, this paper will understand more about the importance of the physical environment element especially workplace lighting. Besides that, this study will improve and enhance the understanding of the topic much clearer and detail explanations further.

1.3' Research Question

- What is the relationship between the effect of lighting in the workplace and employee mood that affect the employee performance?
- What is the relationship between the effect of lighting in the workplace and employee alertness that affect the employee performance?
- What is the relationship between the effect of lighting in the workplace and employee satisfaction that affect the employee performance?
- What is the relationship between the effect of lighting in the workplace that affect the employee productivity and employee performance?
1.4 Objective

This study will investigate the employee perceptions on the effect of lighting that affect employees' performance in the workplace.

1.4.1 General Objective

- To investigate the importance of physical environment workplace lighting which will affects the employee performance at workplace.

1.4.2 Specific Objective

- To identify there is no relationship between the effect of lighting in the workplace and employee mood that affect the employee performance.
- To identify there is no relationship between the effect of lighting in the workplace and employee alertness that affect the employee performance.
- To determine there is no relationship between the effect of lighting in the workplace and employee satisfaction that affect the employee performance.
- To identify there is no relationship between the effect of lighting in the workplace and employee productivity and employee performance.

1.5 Research Hypothesis

Ho1: There is no significant relationship between the effect of lighting in the workplace and employee mood that affect the employee performance.

Ho2: There is no significant relationship between the effect of lighting in the workplace and employee alertness that affect the employee performance.

Ho3: There is no significant relationship between the effect of lighting in the workplace and employee satisfaction that affect the employee performance.
Ho4: There is no significant relationship between the effect of lighting in the workplace and employee productivity and employee performance.

1.6 Conceptual Framework

**INDEPENDENT VARIABLE**
- Workplace Lighting
  - Employee mood
  - Employee alertness
  - Employee satisfaction
  - Employee productivity

**DEPENDENT VARIABLE**
- Employees performance

*Figures 1.1: Conceptual Framework between Independent variable and Dependant variable*

1.7 Significance of Study

In this study, the researcher able to study and identified the importance of the physical environment which can influence the employee performance (workplace lighting). Moreover, the researcher can find and solve the problem of worker discomfort through the lighting condition in the workplace which can affect their work and quality of work.

1.8 Limitation of Study

In this study, the researcher faced time constraint to get more detail information from respondents. This is because the respondents have other duties to settle. In additions, the researcher had to face the respondents who did not indicate the real nature of their behaviour or practices during every day in their life in the workplace.
1.9 Definition of Terms

1.9.1 Lighting

Conceptual

According to Oxford (2000), light is the source of the energy of the sun, light and the otherwise enabling something visible. Light is something that illuminates area in the workplace which came from electric lighting. Every workplace has different types of lamps depending on the suitability of the job.

Operational

Lighting is one of the critical elements in the workplace. A good lighting can help us to see and to know the hazards. It can also reduce the tension and visual discomfort.

1.9.2 Job satisfaction

Conceptual

According to the research and the opinion conducted by Locke (1976), Job satisfaction can be defined as the result of an individual interaction with their work environment. This is because of an individual’s satisfaction is evaluated when the desired value of his/her work has been accomplished.

Operational

Working environment is essential to positively affect the satisfaction among individual employee.
1.9.3 Working Environment

Conceptual

According to the research by Timpe (1999), he argued that the physical environment in the workplace can affect and will affect the employee to perform their daily task every day. This is closely related to the physical work environment, such as the use of lighting, sound, air, equipment and the other office equipment.

Operational

Working environment, tidy and an appropriate to the needs and requirement can positively affect employees in the company.

1.9.4 Brightness/luminance light

Conceptual

According to the study that was done by Karin, C.H.J, Smolders, Yuonne, and A.W de Kort (2014) stated that bright light is beneficial to employee that works during night shift. This is because the result has shown that participant felt less sleepy, more energetic and happier when exposed to bright light.

Operational

The brightness of light or the luminance levels in the employees working environment will cause glare to employee eyes. The glare may cause employee vision in terms of discomfort and unsatisfactory.
1.9.5 Dim light

Conceptual

According to researcher Hoffmann, G., Gufler, V., Griesmacher, A., et al., (2008) stated that dim light, low light or low luminance as level of light in average level 500 lx (dim light control). The employee's concentrations, mood, alertness and satisfaction phase lower than the bright light 5000lx intensity.

Operational

A dim light in the certain area and location in the workplace may cause an incident to happen in the workplace. A dim light will cause a number of employees despite of age to have symptoms such as eye fatigue or headache.

1.9.6 Normal light

Conceptual

According Shane (2012) stated that the benefits of using normal light are easier to the eyes, contributes to concentration, less illness in the workplace and creates a nicer ambience than artificial light.

Operational

Normal light is the light that makes people really enjoy and comfortable to use their eyes. Normal light should be exploited in all the area of workplace in which people work. But the light should be dimmer in the workplace especially to employee that works with computer.